

Claims

1. A door opening and shutting part of a cooking apparatus, comprising:
a cooking apparatus main body that includes a heating chamber; and
5 a door opening and shutting part that openably and closably locks
the object-to-be-heated take-out opening of the heating chamber to shut the
take-out opening, and removes the locked state of the take-out opening to
open the take-out opening,
wherein the door opening and shutting part includes:
10 a handle which opens and shuts the opening and shutting
door; and
a door key which is provided on the opening and shutting
door so as to be movable in the longitudinal direction thereof in conjunction
with an opening and shutting operation of the handle, and is integrally formed
15 with first and second engaging portions, the first and second engaging
portions respectively being provided on the two portions of the door key
spaced a predetermined distance from each other in the longitudinal direction
of the door key so as to project toward the heating chamber;
wherein the cooking apparatus main body includes a door hook
20 which holds the door key by engaging with the first and second engaging
portions, which are inserted into the cooking apparatus main body when the
opening and shutting door is shut;
wherein the door hook includes first and second switches which
respectively switch so as to electrically conduct a power supply circuit for
25 heating the heating chamber by carrying out depressing operations of the first

and second engaging portions when the door hook is engaged with the first and second engaging portions; and

wherein a play in a connecting portion between the handle and the door key is set as a distance which corresponds to a distance that the door key moves in the longitudinal direction thereof when the opening and shutting door is switched from an opened state to a shut state.

2. The door opening and shutting part of the cooking apparatus as set forth in claim 1, wherein the first and second engaging portions are disposed independently of each other in the upper and lower portions of the opening and shutting door.

3. The door opening and shutting part of the cooking apparatus as set forth in claim 1 or 2, wherein the leading end portions of the first and second engaging portions project upwardly.

4. The door opening and shutting part of the cooking apparatus as set forth in any one of claims 1 to 3, wherein the first and second door switches are disposed so that pressing operation portions face downward.

5. The door opening and shutting part of the cooking apparatus as set forth in any one of claims 1 to 4, wherein a position of the first door switch relative to the first engaging portion is the same as a position of the second switch relative to the second engaging portion in the shut state of the opening and shutting door.

6. The door opening and shutting part of the cooking apparatus as set forth in any one of claims 1 to 5, wherein the door key includes parallel portions in the first and second engaging portions, which are parallel to the longitudinal direction of the door key; and
- 5 wherein the door hook brings the parallel portions into contact with the door hook to hold the door key in the shut state of the opening and shutting door.
- 10 7. The door opening and shutting part of the cooking apparatus as set forth in any one of claims 1 to 6, wherein either one of the door hooks includes a short switch, in the vicinity of the first door switch, which is switched over so as to electrically conduct the power supply circuit when the first engaging portion is held; and
- 15 wherein the first engaging portion is disposed at a position where when shutting the opening and shutting door, the first engaging portion depresses the first door switch after the first engaging portion presses down the short switch.
- 20 8. The door opening and shutting part of the cooking apparatus as set forth in any one of claims 1 to 7, wherein the handle is connected to the door key by a rack and pinion mechanism; and
- wherein the door key is operated in a vertical direction in accordance with a rotation operation of the handle.